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(NOT FOR PUBLICATION)

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
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Wasatch-Ashley National Forests
Annual Aerial Detection Survey - July-August 1956

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ANNUAL AERIAL DETECTION SURVEY
WASATCH-ASHLEY NATIONAL FORESTS
JULY-AUGUST 1956

An aerial survey of the Wasatch and Ashley National Forests was conducted the latter part of July and early August. The purpose of the survey was to detect, locate, and describe evidence of unusual forest insect activity.

The epidemic of mountain pine beetle, Dendroctonus monticolae Hopk., on the north side of the Ashley and Wasatch National Forests is continuing. The boundaries of the infestation remain about as they were in 1955, with the main infestation located between Burnt Fork and East Fork of Blacks Fork Creek. Most of the infestation does not extend more than 4 or 5 miles in from the north edge of the timber type. In general, the heaviest concentration of current beetle damage is in the more mature timber close to the north edge of the type. Within the infested areas variations occur in the pattern of attack rate of spread, size of groups, and population density. However, observations made on the ground indicate that throughout the epidemic area the beetle population is very heavy. In no area was there less than 1 new attacked tree for every tree killed last year and drainages showed a buildup ratio in excess of 2 to 1. It was estimated from the air that about 100,000 trees were killed last year in the main infested area.

The old epidemic in the Provo River and Iron Mountain area has diminished to a point where it is now difficult to find any current beetle activity. The only exception noted was some group killing along the river bottom 2 miles or more above the Duchesne tunnel.

Throughout the Bear River drainage the epidemic has died down except for 3 hot spots. In Still Water Creek faders appeared in groups of from 5 to 20 trees scattered along the slopes. This infestation did not seem to extend up stream much more than a mile and a half above the end of the road. Approximately 2 to 2½ miles up the Bear River from Mill Creek junction on the west side of the river there are about 200 red-top trees. These faders are in small groups of 3 and 4 trees. A large center of infestation is located in Cow Creek and contains a very active infestation that encompasses 3 or 4 square miles. The groups range in size from 4 or 5 to 50 faded trees. Probably three-fourths of a tree per acre was killed in this center last year.

On the east side of the main infestation Hickerson Park and the Sheep Creek areas that once contained heavy epidemics are now relatively free of any bark beetle activity. Farther east, two groups of faded trees containing 300 to 400 trees each were located along the canal across Carter Creek and south of the lookout. The exact cause of this mortality is unknown. However, they did not appear typical of trees killed by mountain pine beetle. Possibly they have been attacked by Ips beetles or have been killed by water or both. Some of them have "wet feet". Around Elk Park, south and east of Summit Spring ranger station about 150 faded ponderosa pines and 100 faded lodgepole pines were detected. These bark beetle-killed trees are widely scattered but did show a slight tendency toward grouping. Additional scattered small groups (2 to 4 trees) were detected in the ponderosa pine stands in and around Center and East Fork Creeks, south of Greendale. If additional increase of bark beetle activity in this ponderosa pine stand should develop it might be desirable to initiate some form of control action.

On the south side of the Ashley National Forest the only infestations of mountain pine beetle noted were in Pole Creek and Yellowstone drainages. In Pole Creek, 3 small side drainages, approximately due east of the sawmill contained an active infestation. A ground appraisal within this epidemic area revealed about 2,000 red-top trees and approximately the same number of new attacked trees. The bark beetle has probably been working in the area for at least the last 4 years. The survey this year did reveal that a few widely scattered lodgepole pine were killed on the bench just above the Pole Creek infestation. A small center of infestation still exists in the Yellowstone, just above the ranger station. While it does not appear too serious approximately 200 scattered trees were killed last year.

No evidence of extensive damage, or threatening situations, caused by other species of forest insects were observed. However, a few small weak centers of Douglas-fir beetle activity and the omnipresent killing of true firs by bark beetles are present on both of the forests.